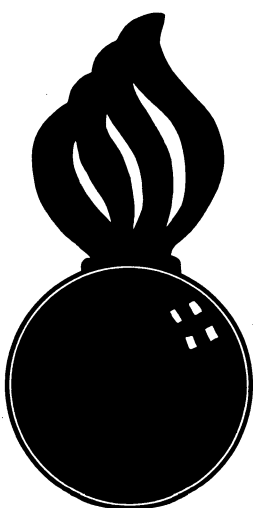


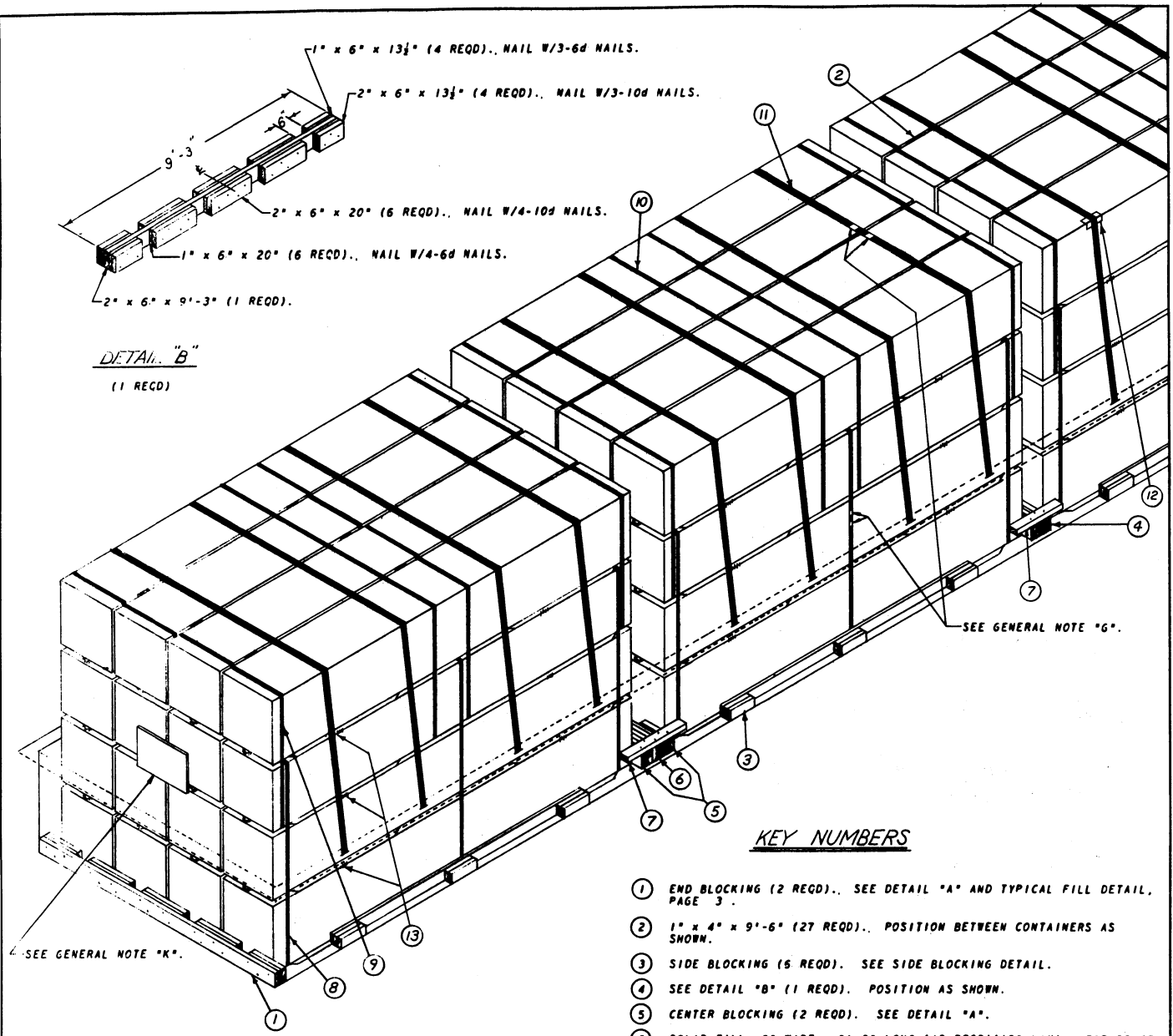
APPROVED
 BUREAU OF EXPLOSIVES
A. J. Grassmuck
 INSPECTOR
 DATE 3/5/62



LOADING & BRACING (CL & LCL) IN GONDOLA CAR OF ROCKET MOTOR, M5 AND/OR M5E1, PACKED ONE PER WOODEN SHIPPING CONTAINER, M13 AND/OR M13A1, FOR THE NIKE-AJAX AND NIKE-HERCULES GUIDED MISSILES

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DESIGNED GBF	CHECKED GBF/RHA	REVISIONS DIW / JB	APPROVED <i>Paul M. F. Mackenzie</i> COLONEL ORN. CORPS U.S.A.
REVISIONS			EXAMINED <i>John Taylor</i> ORN. CORPS U.S.A.
2	25 OCT 59	01 02 <i>Andrew W. Bick</i>	APPROVED BY ORDER OF THE CHIEF OF ORDNANCE <i>Andrew W. Bick</i> ORN. CORPS U.S.A.
			ORDNANCE CORPS U.S.A.
			30 DECEMBER 1957
CLASS	DIVISION	DRAWING	FILE
19	48	5354	GM5A52

DO NOT SCALE

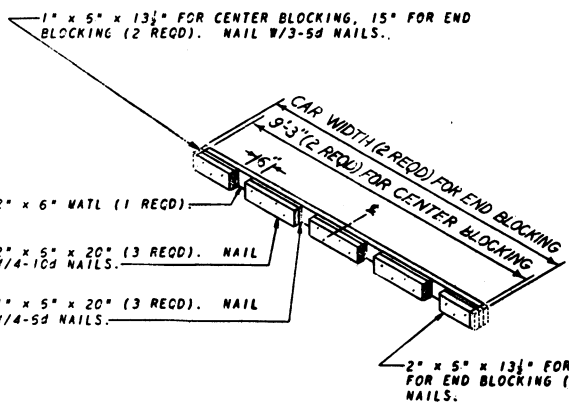


DETAIL "B"
(1 REQD)

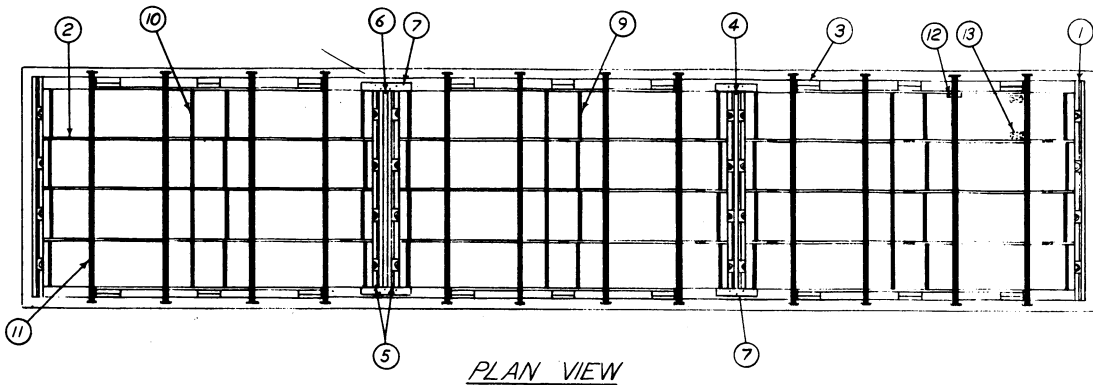
ISOMETRIC VIEW

KEY NUMBERS

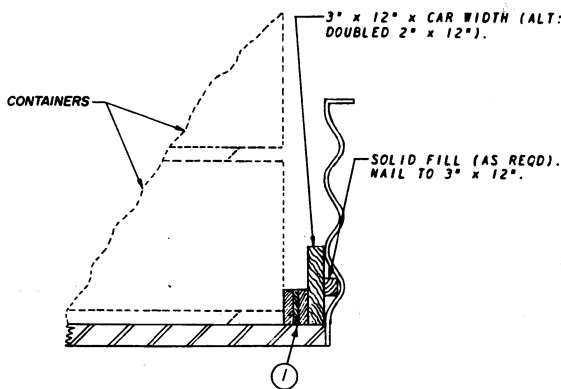
- ① END BLOCKING (2 REQD).. SEE DETAIL "A" AND TYPICAL FILL DETAIL, PAGE 3.
- ② 1" x 4" x 9'-6" (27 REQD).. POSITION BETWEEN CONTAINERS AS SHOWN.
- ③ SIDE BLOCKING (6 REQD).. SEE SIDE BLOCKING DETAIL.
- ④ SEE DETAIL "B" (1 REQD). POSITION AS SHOWN.
- ⑤ CENTER BLOCKING (2 REQD).. SEE DETAIL "A".
- ⑥ SOLID FILL, 6" WIDE x 9'-3" LONG (AS REQD) (12" MAX). FOR SPACE GREATER THAN 12" SEE "CENTER BLOCKING WITH STRUT HOLD DOWN" DETAIL, PAGE 4.
- ⑦ 2" x 4" x CUT TO EXTEND 5" BEYOND ENDS OF CONTAINERS (4 REQD).. NAIL TO ④ W/4-12d NAILS AND TO EACH PC ⑤ W/2-12d NAILS. NAIL TO ⑥ W/7-12d NAIL EACH JOINT.
- ⑧ STEEL STRAPPING, 1½" x .035" x 20'-0" (36 REQD).
- ⑨ STEEL STRAPPING, 1½" x .035" x 15'-0" (36 REQD).
- ⑩ STEEL STRAPPING, 1½" x .035" x 23'-6" (3 REQD).
- ⑪ STEEL STRAPPING, 2" x .050" x 27'-0" (12 REQD).
- ⑫ EDGE PROTECTORS FOR 2" STRAPPING (24 REQD).. SEE GENERAL NOTE "H".
- ⑬ ANTI-SKID PLATES (144 REQD).. POSITION UNDER SKIDS OF CONTAINERS IN SECOND, THIRD AND FOURTH LAYERS. 4 REQD PER CONTAINER.. SEE GENERAL NOTE "F".



DETAIL "A"

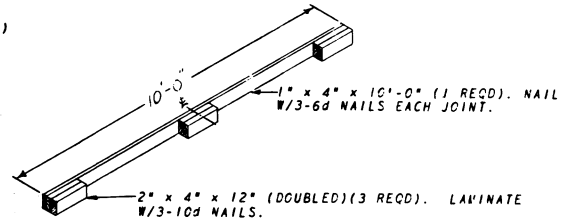


(46'-0" LONG x 9'-6" WIDE GONDOLA CAR)



TYPICAL FILL DETAIL

FOR CARS WITH CORRUGATED END WALLS



SIDE BLOCKING DETAIL

(6 RECD)

GENERAL NOTES

- A. LOAD AS SHOWN IS BASED ON GONDOLA CAR 46'-0" LONG x 9'-6" WIDE x 3'-6" HIGH.
- B. SELECTION OF RAILCARS FOR THE TRANSPORT OF THIS ITEM WILL BE IN ACCORDANCE WITH PAR. 9,300.4 OF ORDM 3-4, VOL 3.
- C. NOTICE: SHIPMENTS WILL BE POSITIONED IN THE RAILCAR IN COMPLIANCE WITH THE WEIGHT DISTRIBUTION REQUIREMENTS OF THE AAR. THE NUMBER OF UNITS MAY BE ADJUSTED TO FIT THE RAILCAR CONCERNED OR THE QUANTITY TO BE SHIPPED; HOWEVER, THE APPROVED METHODS CONTAINED HEREIN FOR FULL OR PARTIAL CARLOAD MUST BE FOLLOWED FOR BLOCKING, BRACING AND STAYING OF THIS ITEM.
- D. FOR THE CARLOADING OF THIS ITEM, INSTALLATIONS SHOULD REQUEST GONDOLA CARS WITH ANCHOR STRAP TIEDOWN FACILITIES. IN THE EVENT GONDOLA CARS SO EQUIPPED ARE NOT READILY AVAILABLE, ANCHOR STRAP TIEDOWNS MAY BE LOCALLY FABRICATED.
- E. FOR DETAIL OF W13 CONTAINER SEE DRAWING NO. 8025310. FOR DETAIL OF W13A1 CONTAINER SEE DRAWING NO. 8030052. CONTAINER DIMENSIONS - 177" LONG x 25 1/2" WIDE x 31 1/2" HIGH. GROSS WEIGHT - W13 CONTAINER, 1,883 POUNDS (APPROX). W13A1 CONTAINER, 1,949 POUNDS (APPROX).
- F. THE WORDS "ANTI-SKID PLATES" WILL BE STENCILED IN ONE INCH (1") LETTERS ON BOTH SIDES OF THE CONTAINERS TO SHOW THE LOCATION OF THESE PLATES.
- G. ALL 2" STRAPPING APPLIED IN TWO (2) PIECES AND ALL 1 1/2" STRAPPING WILL BE SEALED WITH TWO (2) SEALS AND TWO (2) CRIMPS PER SEAL.
- H. IF EDGE PROTECTORS FOR 2" STRAPPING ARE NOT COMMERCIALY AVAILABLE THEY MAY BE FORMED FROM 18 (MIN) GAUGE SHEET STEEL 9" LONG x 6" WIDE.
- J. THIS ITEM IS AN ICC CLASS "B" EXPLOSIVE. PROCEDURES SHOWN HEREIN ARE APPLICABLE FOR THE SHIPMENT OF CONTAINERS WITH INERT LOADED, EMPTY OR PRACTICE MOTORS AND OF EMPTY CONTAINERS.
- K. IF RAIL CAR IS NOT EQUIPPED WITH PLACARD BOARDS ON BOTH ENDS AND BOTH SIDES, 15" x 24" BOARDS MUST BE PROVIDED AS REQUIRED.

BILL OF MATERIAL

LUMBER	LINEAL FEET	BOARD FEET
1" x 4"	317	106
1" x 6"	44	22
2" x 4"	45	30
2" x 6"	147	147
NAILS	NO. REQD	POUNDS
6d (2")	162	1
10d (3")	185	3
STEEL STRAPPING, 1 1/2" x .035" - 1,331' REQD - 191 LBS		
STEEL STRAPPING, 2" x .050" - 324' REQD - 109 LBS		
ANTI-SKID PLATES - 144 REQD - 36 LBS		
EDGE PROTECTORS - 24 REQD - 6 LBS		

MATERIAL SPECIFICATIONS

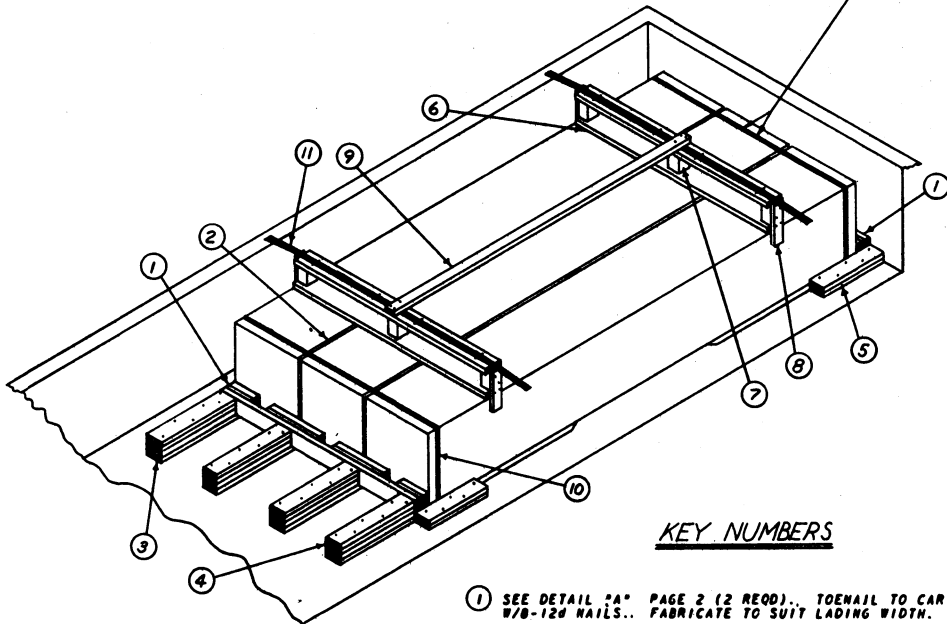
LUMBER: SEE PARAGRAPH 9400, ORDM 3-4, VOL 3.
 NAILS: COMMON, CEMENT COATED, FED SPEC FF-N-105.
 ALT: ANNULAR-RING TYPE NAIL OF SAME SIZE.
 STRAPPING, STEEL: TYPE 1, CLASS "A" OR "C", FED SPEC 00-5-791.
 FOR FSN SEE SB-38-100.
 ANTI-SKID PLATES: SIGNODE NO. 1 OR EQUAL.

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT
ROCKET MOTOR, M13 CNTR	48	90,384 LBS * (APPROX)
DUNNAGE	-	1,110 LBS
TOTAL WEIGHT		91,494 LBS

* ROCKET MOTOR, W13A1 CNTR-93,552 LBS.

SEE GENERAL NOTE "6", PAGE 3



TYPICAL LCL
FOR WOOD FLOOR GONDOLAS ONLY

KEY NUMBERS

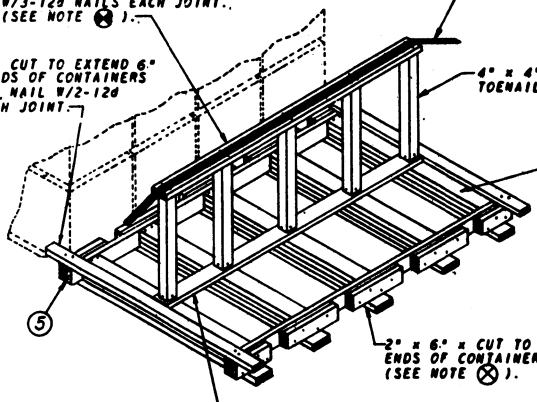
- ① SEE DETAIL "A" PAGE 2 (2 REQD).. TOENAIL TO CAR FLOOR AND/OR ③ W/8-12d NAILS.. FABRICATE TO SUIT LADING WIDTH.
- ② 1" x 4" x 28 1/2" (6 REQD).. POSITION BETWEEN CONTAINERS AS SHOWN.
- ③ 2" x 6" x 42" (4 REQD).. EXTEND 2" UNDER CONTAINER.. NAIL TO CAR FLOOR W/7-16d NAILS..
- ④ 2" x 6" x 36" (TRIPLED)(4 REQD).. NAIL FIRST PIECE TO ③ W/7-40d NAILS.. NAIL EACH ADDITIONAL PIECE IN LIKE MANNER..
- ⑤ 2" x 6" x 36" (DOUBLED)(4 REQD).. NAIL FIRST PIECE TO CAR FLOOR W/7-16d NAILS.. NAIL SECOND PIECE TO FIRST IN LIKE MANNER..
- ⑥ 2" x 6" x 6'-5 1/2" (4 REQD).. NAIL TO ⑦ W/3-12d NAILS EACH JOINT..
- ⑦ 4" x 4" x CUT TO EXTEND 6" ABOVE CAR SIDE WALL (6 REQD)..
- ⑧ 2" x 4" x 15" (4 REQD).. NAIL TO ⑥ AND/OR ⑦ W/6-12d NAILS.. EXTEND 3" BELOW TOP OF CONTAINER..
- ⑨ 2" x 4" x 10'-0" (1 REQD).. NAIL TO ⑥ W/3-12d NAILS EACH END.. POSITION TO ALIGN ASSEMBLY WITH CAR TIEDOWN FACILITIES..
- ⑩ STEEL STRAPPING, 1 1/2" x .035" x 19'-0" (2 REQD)..
- ⑪ STEEL STRAPPING, 2" x .050" x 15'-0" (2 REQD).. STAPLE TO ⑥ W/4-2" STAPLES..

STEEL STRAPPING, 2" x .050" x 15'-0" (1 REQD).. STAPLE W/3-2" STAPLES.. (SEE NOTE ⑧)..

2" x 6" x CUT TO FIT (1 REQD).. NAIL W/3-12d NAILS EACH JOINT.. (SEE NOTE ⑧)..

2" x 4" x CUT TO EXTEND 6" BEYOND ENDS OF CONTAINERS (2 REQD).. NAIL W/2-12d NAILS EACH JOINT..

4" x 4" x CAR SIDE HEIGHT (5 REQD).. TOENAIL W/4-16d NAILS.. (SEE NOTE ⑧)..



STRUTS, 2" x 6" x CUT TO WEDGE FIT (12" MIN).. TRIPLED (5 REQD).. NAIL FIRST PIECE W/1-10d NAIL EVERY 6".. NAIL EACH ADDITIONAL PIECE W/1-30d NAIL EVERY 6".. TOENAIL TOP PIECE W/2-16d NAILS EACH END.. (SEE NOTE ⑧)..

2" x 6" x CUT TO EXTEND 6" UNDER ENDS OF CONTAINER (5 REQD).. (SEE NOTE ⑧)..

2" x 6" x LADING WIDTH (1 REQD).. NAIL W/3-12d NAILS EACH JOINT.. (SEE NOTE ⑧)..

NOTE ⑧ : TO BE USED WHEN EXCESS LENGTH IN CAR IS GREATER THAN 12".

NOTE ⑧ : TO BE USED WHEN STRUTS ARE GREATER THAN 8'-0" IN LENGTH.

CENTER BLOCKING WITH STRUT HOLD DOWN